

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-121234  
 (43)Date of publication of application : 12.05.1998

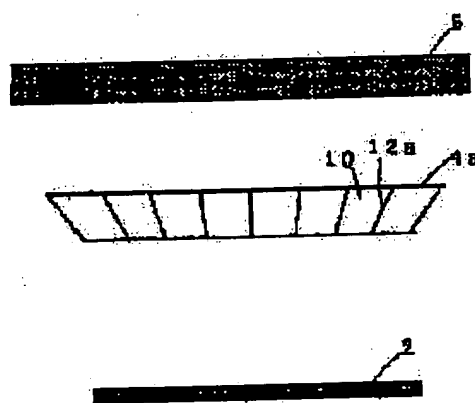
(51)Int.Cl. C23C 14/34  
 H01L 21/203  
 H01L 21/285

(21)Application number : 08-298096 (71)Applicant : RICOH CO LTD  
 (22)Date of filing : 21.10.1996 (72)Inventor : ABE HIROYUKI

## (54) SPUTTERING DEVICE AND COLLIMATOR USED THEREFOR

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To eliminate the asymmetry of formed coating by a long distant sputtering method.  
**SOLUTION:** The bulkhead 12a of the cell 10 of a collimator 4a is made oblique, and its angle is made wide as it closes from the center part to the circumferential part in the collimator 4a. The bulkhead 12a of the cell 10 of the collimator 4a is made slant in such a manner that the normal of the bulkhead on the circumferential side of the cell 10 orients not to the side of a substrate 2 but to the side of a target 6. In this way, since, in the circumferential part of a wafer 2, the effect of trapping the sputtered particles imparting asymmetry increases and the components at the shallow angles and the components having incident angles in the direction opposite to the gradient direction of the cell bulkhead 12a are hardly trapped, the effect of improving the asymmetry at the hall part is made higher than the case in which the cell bulkhead is vertical.



## LEGAL STATUS

[Date of request for examination]  
 [Date of sending the examiner's decision of rejection]  
 [Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]  
 [Date of final disposal for application]  
 [Patent number]  
 [Date of registration]  
 [Number of appeal against examiner's decision of

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rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]

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